

CLAIMS

1. A container and a closure for connection to said container, said closure including:

an upper wall;

5 a skirt formed integrally with and extending downwardly from said upper wall, said skirt adapted to engage with a neck portion of the container to secure the closure to the container;

a tamper-evident band frangibly connected to said skirt;

10 the neck of the container including a plurality of discretely spaced projections extending outwardly from said neck and adapted to engage with tabs on said tamper-evident band to facilitate breaking of the band from the skirt of the closure.

2. The container and closure for connection to said container as claimed in claim 1, wherein said closure further includes a sealing means depending from said upper wall, said sealing means adapted to seal against the neck of the container.

15 3. The container enclosure as claimed in claim 1, wherein said projections include one or more ramped surfaces which engage with engagement surfaces on said tabs of said tamper-evident band to facilitate the breaking of the band from the skirt of the closure.

4. A container and closure as claimed in claim 1 wherein the closure is designed 20 according to the following formula:

$$A \geq B + C + D + E + F$$

wherein:

- (i) A is the distance over which the sealing member can seal against the inner wall or outer wall of the neck portion of the container;
- 25 (ii) B is the distance between the engagement surface of the tamper-evident band and the engagement surface of the tabs when the closure is fully applied to the container;
- (iii) C is the amount of compression that occurs in the tamper-evident band tabs during the process of removal of the closure;
- 30 (iv) D is the amount of stretch that occurs under stress during closure removal in the skirt and the frangible ribs connecting the tamper-evident band to the closure skirt;

- (v) E is the distance equal to the tolerance allowed in the measurement specifications of the container neck and the closure; and
- (vi) F is the distance required for a margin of safety for a particular closure and neck combination so as to promote the operation of the tamper-evidence means prior to loss of the seal between closure and container neck.

5. A closure for connection to a container, said closure including:
an upper wall;
a skirt formed integrally with and extending downwardly from said upper wall,
10 said skirt adapted to engage with a neck portion of the container to secure the closure to the container;
a plunger housing located in said upper wall;
a plunger sealingly engaged in said plunger housing;
wherein said plunger and plunger housing adapted for dispensing one or more
15 additives into the container.